

## EAST Search History

| Ref # | Hits | Search Query  | DBs                       | Default Operator | Plurals | Time Stamp       |
|-------|------|---|---------------------------|------------------|---------|------------------|
| S37   | 55   | "417"/\$.ccls (equation with waveform) and pump and piezoelectric   | US-PGPUB; USPAT; EPO; JPO | OR               | ON      | 2007/06/07 15:01 |
| S36   | 5116 | "417"/\$.ccls (equation with waveform)  | US-PGPUB; USPAT; EPO; JPO | OR               | ON      | 2007/06/07 15:01 |
| S35   | 4940 | "417"/\$.ccls (equation with waveform)  | US-PGPUB; USPAT           | OR               | ON      | 2007/06/07 15:01 |
| S34   | 1    | S33 and (equation with waveform)  | US-PGPUB; USPAT           | OR               | ON      | 2007/06/07 15:00 |
| S33   | 1260 | (417/413.2,322,44.1).CCLS.  | US-PGPUB; USPAT; EPO; JPO | OR               | OFF     | 2007/06/07 15:00 |
| S32   | 0    | S30 and (equation with waveform)  | US-PGPUB; USPAT           | OR               | ON      | 2007/06/07 15:00 |
| S31   | 1    | S30 and equation  | US-PGPUB; USPAT           | OR               | ON      | 2007/06/07 14:59 |
| S30   | 1    | ("7056096").PN.   | US-PGPUB; USPAT           | OR               | OFF     | 2007/06/07 14:59 |
| S29   | 276  | ((piezoelectric or piezo-electric) same pump) and waveform  | USPAT                     | OR               | ON      | 2007/02/13 09:38 |
| S28   | 276  | ((piezoelectric or piezo-electric) same pump) and waveform  | USPAT                     | OR               | ON      | 2007/02/13 09:38 |
| S27   | 275  | ((piezoelectric or piezo-electric) same pump) and waveform  | USPAT                     | OR               | ON      | 2007/02/12 17:11 |
| S26   | 2356 | (piezoelectric or piezo-electric) same pump   | USPAT                     | OR               | ON      | 2007/01/25 21:06 |
| S25   | 4240 | (piezoelectric or piezo-electric) same pump   | US-PGPUB; USPAT           | OR               | ON      | 2007/01/25 18:29 |
| S24   | 5017 | (piezoelectric or piezo-electric) same pump   | US-PGPUB; USPAT; EPO; JPO | OR               | ON      | 2007/01/25 18:29 |
| S23   | 1    | ("6499288").PN.   | US-PGPUB; USPAT           | OR               | OFF     | 2006/10/11 15:39 |
| S22   | 11   | ("20020140441" "20020185938" "20030146956" "20040145273" "20050186117" "5022258" "5195046" "5517845" "6428134" "6950640" "6993812").PN. | US-PGPUB; USPAT; EPO; JPO | OR               | ON      | 2006/10/11 14:21 |
| S21   | 12   | waveform with optimiz\$5 with pump  | US-PGPUB; USPAT; EPO; JPO | OR               | ON      | 2006/10/10 15:42 |

## EAST Search History

|     |       |   |                                 |    |     |                  |
|-----|-------|---|---------------------------------|----|-----|------------------|
| S20 | 39    | ("20020140441" "20020185938" "20030146956" "20040000843" "20040021398" "20040145273" "20050186117" "3936342" "4034780" "4095615" "4859530" "4939405" "5022258" "5049421" "5084345" "5195046" "5271724" "5471721" "5517845" "5632841" "5759015" "5849125" "5876187" "5945768" "6033191" "6042345" "6060811" "6071087" "6071088" "6104127" "6109889" "6162313" "6179584" "6213735" "6227809" "6227824" "6428134" "6950640" "6993812").PN. | US-PGPUB;<br>USPAT              | OR | ON  | 2006/10/10 15:07 |
| S19 | 1     | ("6925810").PN.   | US-PGPUB;<br>USPAT              | OR | OFF | 2006/04/13 08:54 |
| S18 | 1     | S16 and burner  | US-PGPUB;<br>USPAT              | OR | ON  | 2006/04/13 08:54 |
| S17 | 1     | S16 and (fuel with meter\$4)  | US-PGPUB;<br>USPAT              | OR | ON  | 2006/04/12 16:11 |
| S16 | 1     | ("20040134194").PN.   | US-PGPUB;<br>USPAT              | OR | OFF | 2006/04/12 16:07 |
| S15 | 1     | ("6616413").PN.   | US-PGPUB;<br>USPAT              | OR | OFF | 2006/04/12 16:07 |
| S14 | 1     | ("6368081").PN.   | US-PGPUB;<br>USPAT              | OR | OFF | 2006/04/12 14:44 |
| S13 | 1     | ("6688379").PN.   | US-PGPUB;<br>USPAT              | OR | OFF | 2006/04/11 15:08 |
| S12 | 5     | ((("6071088") or ("4939405") or ("6104127") or ("20040000843") or ("20040018100")).PN.  | US-PGPUB;<br>USPAT              | OR | OFF | 2006/04/10 10:59 |
| S11 | 259   | S10 not S1  | US-PGPUB;<br>USPAT;<br>EPO; JPO | OR | ON  | 2006/04/07 15:19 |
| S10 | 273   | S8 and ((piezoelectric\$3) or (piezo-electric\$4))  | US-PGPUB;<br>USPAT;<br>EPO; JPO | OR | ON  | 2006/04/07 15:19 |
| S9  | 15721 | S8 and (piezoelectric\$3) or (piezo-electric\$4)  | US-PGPUB;<br>USPAT;<br>EPO; JPO | OR | ON  | 2006/04/07 15:13 |
| S8  | 398   | (417/322,413.2).CCLS.   | US-PGPUB;<br>USPAT;<br>EPO; JPO | OR | OFF | 2006/04/07 15:12 |
| S7  | 292   | (417/322,413.2).CCLS.   | US-PGPUB;<br>USPAT              | OR | OFF | 2006/04/07 15:12 |
| S6  | 0     | 417/322,413.2   | US-PGPUB;<br>USPAT;<br>EPO; JPO | OR | ON  | 2006/04/07 15:12 |

## EAST Search History

|    |    |   |                    |    |    |                  |
|----|----|---|--------------------|----|----|------------------|
| S5 | 6  | S2 and pump   | US-PGPUB;<br>USPAT | OR | ON | 2006/04/07 15:11 |
| S4 | 1  | S2 and piezo and pump   | US-PGPUB;<br>USPAT | OR | ON | 2006/04/07 14:13 |
| S3 | 5  | S2 and piezoelectric  | US-PGPUB;<br>USPAT | OR | ON | 2006/04/07 14:13 |
| S2 | 6  | (US-20040021398-\$ or<br>US-20040018100-\$ or<br>US-20040000843-\$).did. or<br>(US-6104127-\$ or US-6071088-\$ or<br>US-4939405-\$).did.  | US-PGPUB;<br>USPAT | OR | ON | 2006/04/07 13:47 |
| S1 | 37 | ("20040000843" "20040018100" "2<br>0040021398" "20050244288" "3936<br>342" "4034780" "4095615" "485357<br>9" "4859530" "4939405" "5049421"<br> "5070848" "5084345" "5271724" "<br>5471721" "5632841" "5759015" "58<br>49125" "5876187" "5945768" "6033<br>191" "6042345" "6060811" "607108<br>7" "6071088" "6104127" "6109889"<br> "6162313" "6179584" "6213735" "<br>6227809" "6227824" "6229245" "62<br>46152" "6411009" "6659978" "6969<br>941").PN. | US-PGPUB;<br>USPAT | OR | ON | 2006/04/07 13:40 |